

SONY®

TRINITRON® COLOR TV

KV-2084R

(CABLE COMPATIBLE TV)

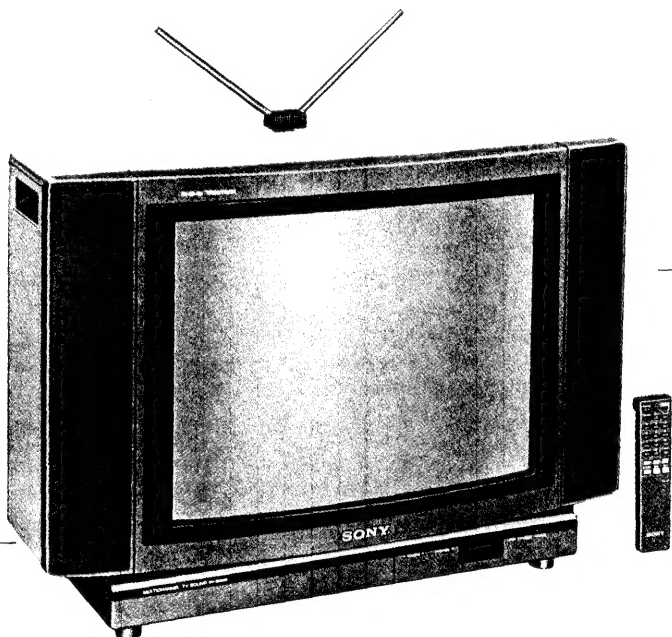
OPERATING INSTRUCTIONS

Welcome to the advanced world of Sony TV. For the best results and the utmost satisfaction from your new set, please read this manual thoroughly and retain it for future reference.

OWNER'S RECORD

The model and serial numbers are located at the rear. Record the serial number in the space provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. KV-2084R Serial No. _____



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WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION
TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

PRECAUTIONS

Safety

- Operate the set only on 120 V AC.
- One blade of the plug is wider than the other for the purpose of safety and will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.
- Should any liquid or solid object fall into the cabinet, unplug the set and have it checked by qualified personnel before operating it any further.
- Unplug the set from the wall outlet if it is not going to be used for several days or more. To disconnect the cord, pull it out by the plug. Never pull the cord itself.

Installation

- To prevent internal heat build-up, do not block the ventilation openings.
- Do not install the set in a hot or humid place or in a place subject to excessive dust or mechanical vibration.

Cleaning

Clean the set with a slightly damp soft cloth. Use a mild household detergent. Never use strong solvents such as thinner or benzine as they might damage the finish of the cabinet.

Repacking

Retain the original carton and packing materials for safe transport of this set in the future.

Use of this television receiver for other than private viewing of programs broadcast on UHF or VHF or transmitted by cable companies for the use of the general public may require authorization from the broadcaster/cable company and/or program owner.

FEATURES

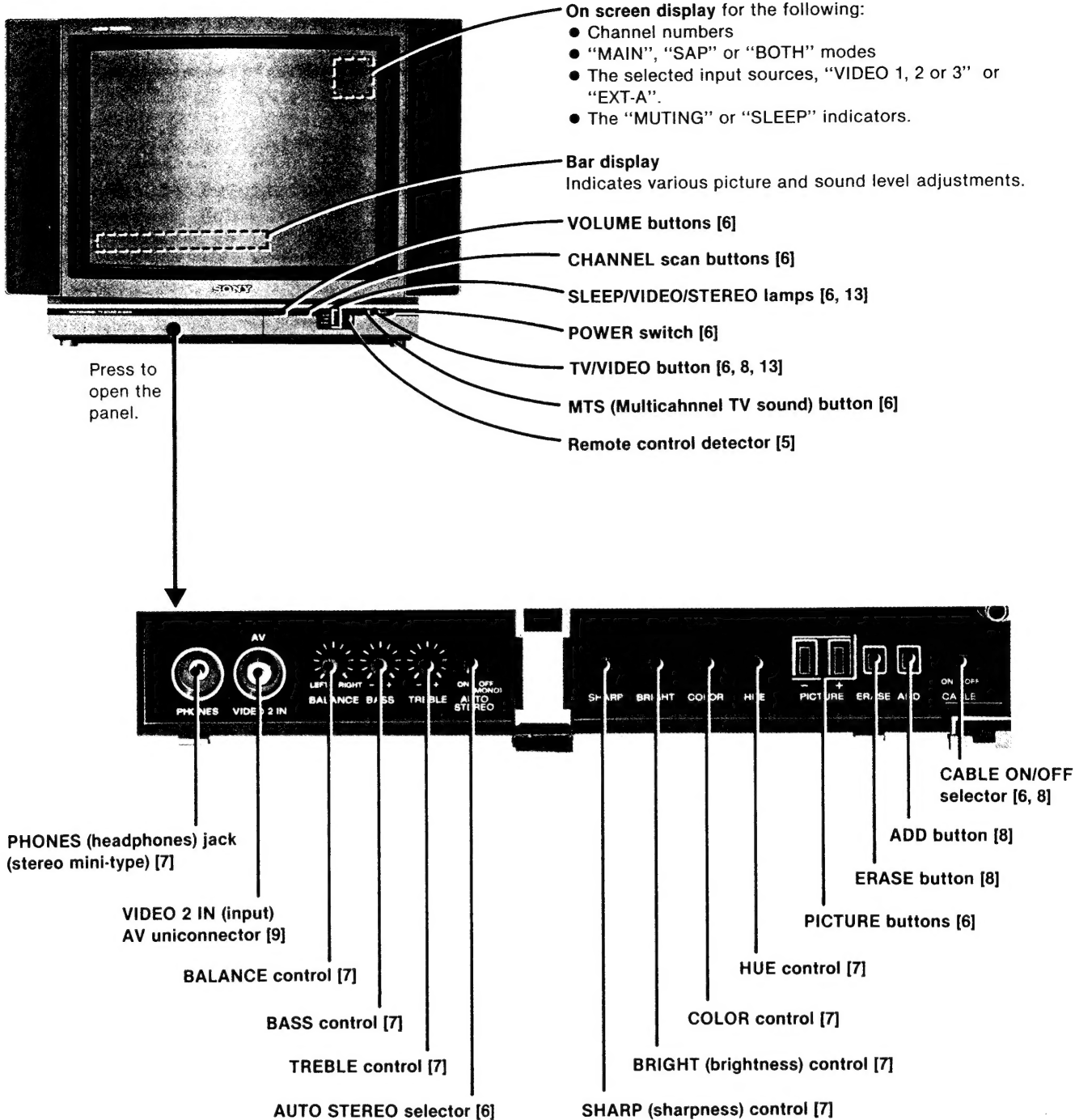
- **New Microblack™ Trinitron®** picture tube with more finely pitched aperture grille for higher resolution, higher contrast picture
- **Built-in stereo decoder** decodes MTS (Multichannel TV Sound) broadcasts into left and right stereo or SAP (Second Audio Program) channels*.
- **Multi-band VHF/UHF/CATV tuner** receives up to 125 cable channels for a total of 181 possible off-air and cable channels.
- **Two built-in video and L/R audio line inputs and a new AV unconnector** allow direct hook-up to VCRs, video disc players, video games or other audio/video sources. The AV unconnector receives combined video and L/R audio signals for one easy connection.
- **External audio (L/R) jacks** allow to connect an FM tuner for stereo simulcasts.
- **Built-in video and L/R audio line outputs** provide the selected output from the TV tuner or any of the equipment connected to the audio-video line inputs or the AV unconnector.
- **Remote control Trinitron color television**
- **On-screen displays** for easy reference to operating modes and adjustments
- **Dynamic Picture™ circuitry** automatically adjusts the picture contrast to produce more detail in bright and dark areas of the scene.
- **Colorpure Filter™** separately processes B/W picture information from color information to produce a dramatically sharper picture.

* Depends on availability of off-air stereo broadcasts.

LOCATION OF CONTROLS

For details on the use of each control, refer to the pages indicated in brackets.

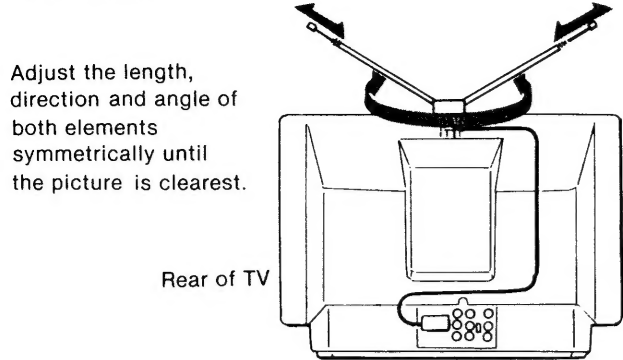
Front



SET-UP

INDOOR ANTENNA ADJUSTMENT

For VHF/UHF reception, use the attached telescopic dipole antenna.



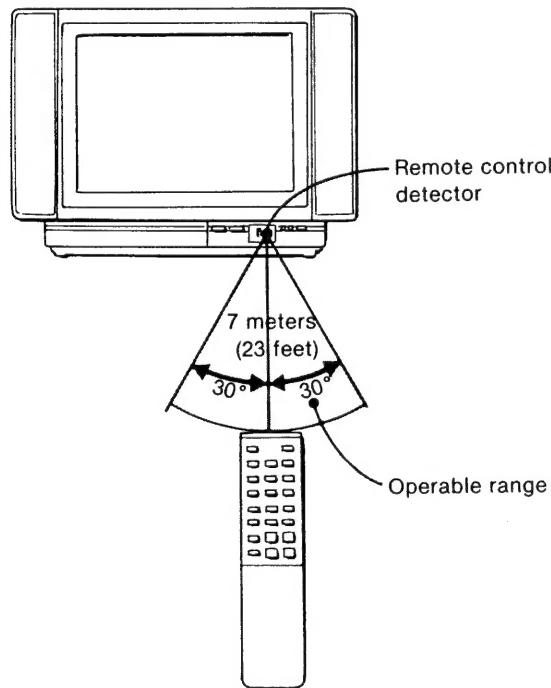
The indoor telescopic dipole antenna will provide good reception in most areas.

REMOTE COMMANDER

- 1 Turn the Remote Commander face down, press the tab and lift the cover.
- 2 Place batteries in the Commander with the polarities in the correct directions, as illustrated inside the case.
- 3 Replace the cover.

Notes

- Use 2 size AA batteries (IEC designation R6).
- In normal operation, batteries will last up to half a year. If the set does not operate properly, the batteries might be exhausted. Replace all with new ones.
- To avoid damage from possible battery leakage, remove the batteries for extended unused periods.
- Be sure that there are no obstructions between the Commander and the TV.
- Operable range is limited.

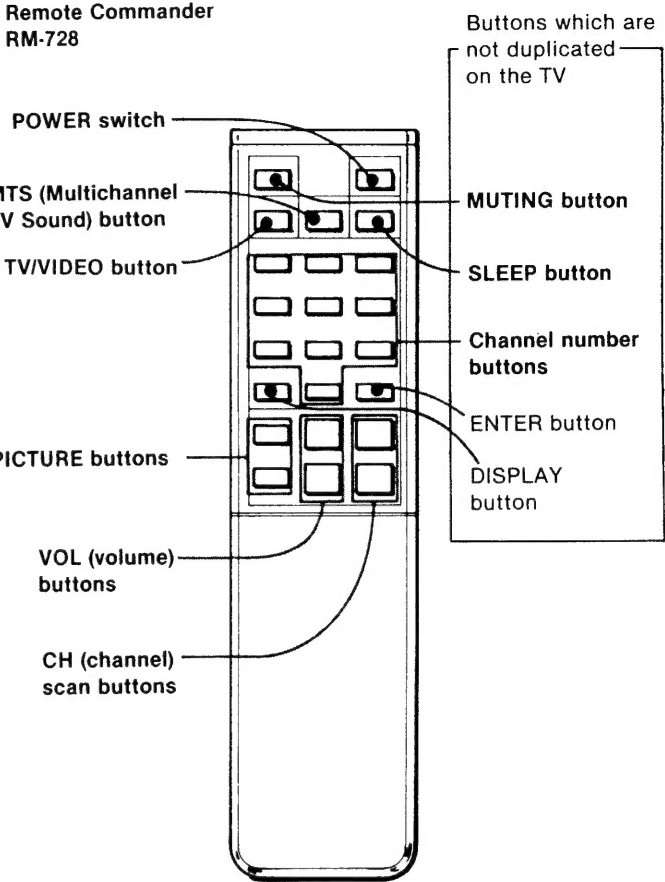


OPERATION

VIEWING TV PROGRAMS

This TV set is capable of receiving normal VHF and UHF broadcasts plus cable TV channels. (See “Cable TV channel chart” below.)

Usually the Remote Commander is all that is needed to operate the TV set in everyday use.



Cable TV channel chart *

Cable TV systems use letters or numbers to designate channels. To tune in a channel, refer to this chart.

Number on this TV					1	5	6	14	15	16	17	
Corresponding CATV channel					A-8	A-7	A-6	A	B	C	D	
18	19	20	21	22	23	24	25	26	27	28	29	30
E	F	G	H	I	J	K	L	M	N	O	P	Q
31	32	33	34	35	36	37	38	39	.....		93	94
R	S	T	U	V	W	W+1	W+2	W+3	.....		W+57	W+58
95	96	97	98	99	100	101	102	.....		123	124	125
A-5	A-4	A-3	A-2	A-1	W+59	W+60	W+61	.....		W+82	W+83	W+84

Check with your local cable TV company for more complete information on the available channels.

* The designation of the cable TV channels conforms to the EIA/NCTA recommended standards.

Preparation

Make sure the following are properly set.

- On-screen "VIDEO 1, 2 or 3", or "EXT-A" indicators and the VIDEO lamp should be off.
(Press TV/VIDEO button as many times as necessary until they go out.)
- AUTO STEREO selector should be set to ON (toward left).
Depending on the channel to be viewed, check the following and change as necessary.
- CABLE ON/OFF selector
For VHF and UHF channels, set to OFF.
For cable TV channels, set to ON.
- If the "SAP" indication appears, press the MTS button twice so that the "MAIN" indication is displayed.
* The displays, "VIDEO" or "EXT-A" indicate that signals fed in through the VIDEO 1/3 INPUT jacks, VIDEO 2 IN AV unconnector, or the external audio jacks are being received.

1 Press POWER to turn on the TV.

The channel number will be displayed on the screen and the SLEEP lamp will light up for several seconds.

2 Select channels in one of the following two ways.

- Press the numeral(s) of the channel and then press ENTER.
Ex. To select channel 6, press 6 and then ENTER.
To select channel 125, press 1, 2, 5 and then ENTER.

If you pressed a wrong numeral, wait for a few seconds and it will disappear. Then try again.

- Press CH "+" for higher-numbered channels and "-" for lower-numbered channels. Preset channels will appear in sequence. (For presetting desired channels, see page 8.)

The channel display will remain on the screen for a few seconds.

To keep the display on the screen, press DISPLAY.

3 Adjust the volume and picture to your preference, if necessary.

Press VOL "+" to increase volume, or "-" to decrease it.

Press PICTURE "+" to increase picture contrast, or "-" to decrease it.

To mute the sound immediately, press MUTING. The "MUTING" display will appear and remain on the screen. Press it again to restore the sound to its previously-set level or press VOLUME +/-.

To turn off the set, press POWER again.

To have the set turn off automatically after one hour, press SLEEP. The "SLEEP" display will appear on the screen a few seconds and the SLEEP lamp on the TV will remain lit for one hour.

To cancel the sleep timer, press SLEEP again so that the "SLEEP" display disappears, or turn off the TV.

LISTENING TO MULTICHANNEL TV SOUND(MTS) BROADCASTS

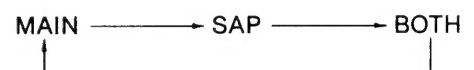
In the years to come, an increasing number of programs will be broadcast in stereo. Called Multichannel TV Sound or MTS, the new technology will greatly enhance TV viewing by bringing you programs with high fidelity stereo sound. MTS also provides for an extra channel called the Second Audio Program or SAP which broadcasters can use to transmit a second language for bilingual transmissions or some other sound track.

To receive a stereo program

Normally set the AUTO STEREO selector to ON. In this position, the STEREO lamp on the TV will light up whenever a stereo broadcast is received.

To listen to the stereo sound, select the MAIN mode with the MTS button so that the on-screen "MAIN" indicator appears. The stereo sound will be heard from the left and right speakers.

Every push on the MTS button changes the indicator below the channel number as follows:



Select the appropriate mode according to various possible incoming broadcast signals.

When there is a SAP (Second Audio Program) broadcast

Select the SAP mode so that the "SAP" indicator will be displayed and only the SAP sound will be heard from both speakers.

To listen to both MAIN and SAP broadcasts

Select the BOTH mode so that the "BOTH" indicator is displayed. The MAIN and SAP sounds will come out from the left and right speakers respectively.

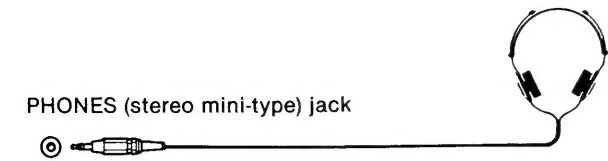
The MAIN sound becomes monaural(mixed) even if it is a stereo broadcast, as the sound comes only from the left speaker.

Notes

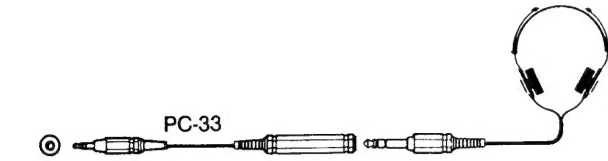
- The selected mode will be retained even after the power has once been turned off.
- There may be cases of stereo broadcasts where excessive "noise" will be heard due to a weak incoming signal. By switching the AUTO STEREO selector to OFF and returning to a monaural mode, the noise should be eliminated.
- When the SAP or BOTH mode is selected and there is no SAP broadcast, no sound is heard from the speakers (in SAP mode) or the sound is heard only from the left speaker (in BOTH mode).
- The SAP broadcast will always be transmitted with the MAIN broadcast

Use of headphones

For private listening of sound, connect the supplied ear-phone or a pair of 8-ohm headphones (optional) to the PHONES jack. The sound from the speakers will be cut off automatically.



If the plug of your headphones is a stereo phone-type plug, use the optional Sony PC-33 plug adaptor.

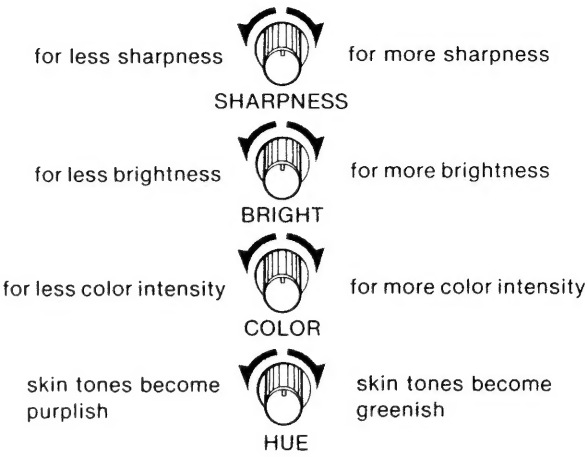


The supplied earphone can also be connected to listen to the monaural (left channel) sound.

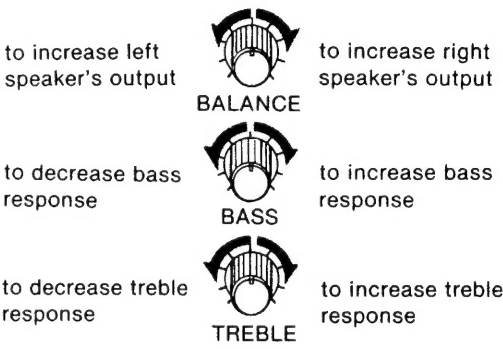
PICTURE AND SOUND ADJUSTMENTS

Satisfactory results will usually be obtained with the controls set at the normal center or center detent position. If any adjustments are necessary, turn the controls as follows.

Adjusting the picture

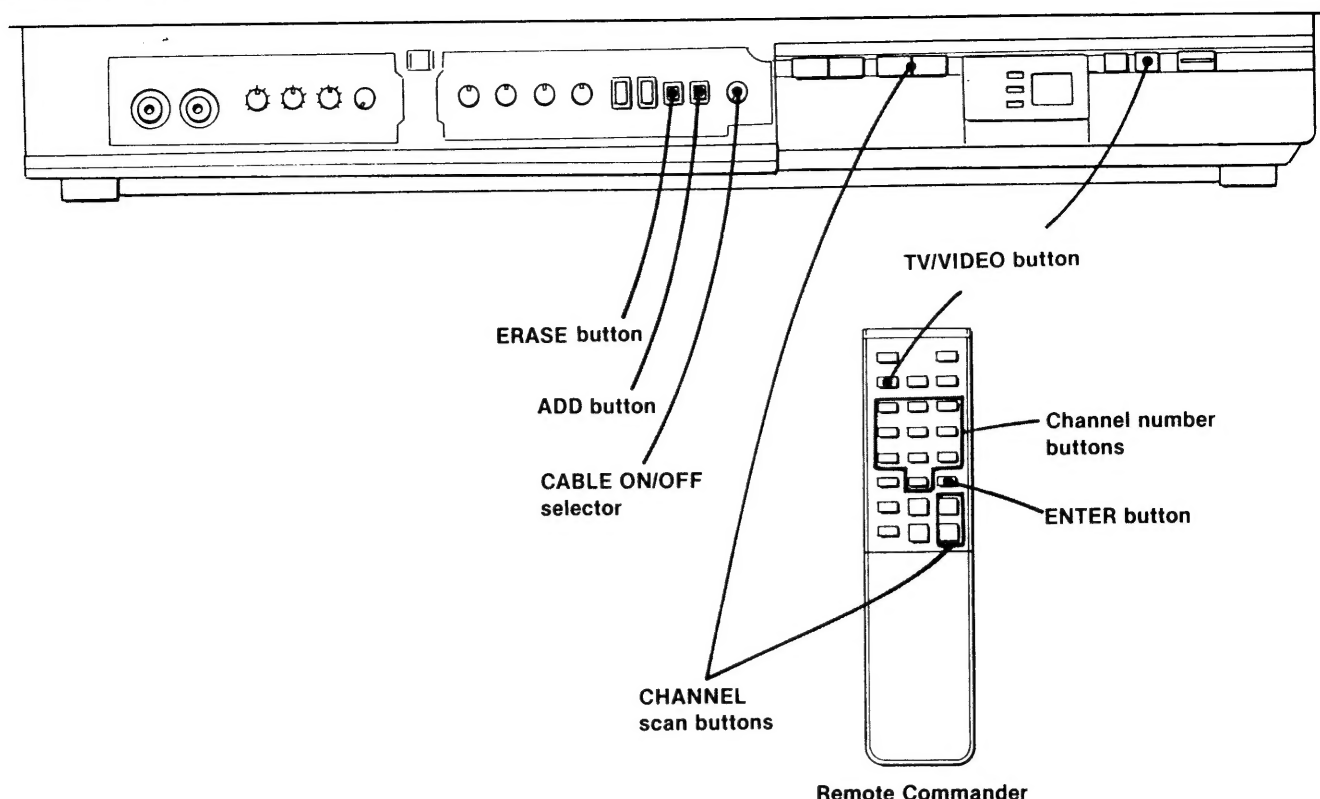


Adjusting the sound



PRESETTING CHANNELS

Controls on the TV



Receivable channels of your set are:

VHF: 2-13

UHF: 14-69

CATV: 1-125

By adding and erasing channels, you can preset your TV so that only the desired channels appear in sequence when the CHANNEL +/- are pressed.

PREPARATION

- 1 Turn on TV.
- 2 Make sure the following are properly set.
On-screen "VIDEO 1, 2 or 3" or "EXT-A" indicators and the VIDEO lamp should be off.
(Press TV/VIDEO button as necessary until they go out.)
- 3 According to the channel to be added or erased, check the following and make the necessary changes if any.
 - CABLE ON/OFF selector
For VHF and UHF channels, set to OFF.
For cable TV channels, set to ON.

ADDING CHANNELS

- 1 Select the channel to be added by pressing the channel number buttons and then ENTER.
- 2 Press ADD.

A "+" indication will appear on the left of the channel display on the screen, indicating that the channel will appear in the proper numerical sequence when you press CHANNEL +/-.

Repeat steps 1 and 2 for other channels to be added.

ERASING CHANNELS

- 1 Select the channel to be erased.
- 2 Press ERASE.

A "-" indication will appear on the left of the channel display on the screen, indicating that the channel has been erased. When CHANNEL +/- are pressed, you will see that the channel is skipped over in the numerical sequence.

Repeat steps 1 and 2 for other channels to be erased. To add erased channels again, follow the steps in "ADDING CHANNELS".

Note

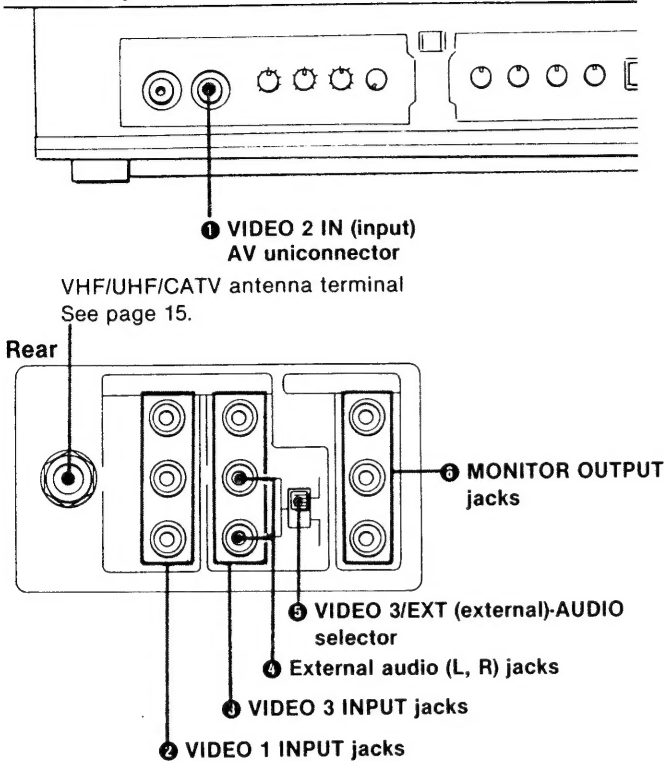
You cannot erase a VHF or UHF channel from the memory and retain a cable TV channel which has the same number, or vice versa. If either a VHF/UHF channel or a cable TV channel with the same number is to be kept in the memory, do not erase the number.

APPLICATIONS WITH OTHER OPTIONAL EQUIPMENT

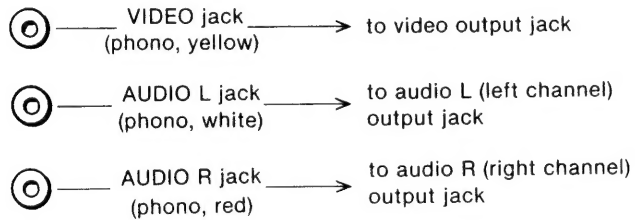
This unit is equipped with various input/output jacks for your desired equipment to be connected.
For details on the various optional connecting cables to be used, see "OPTIONAL AUDIO/VIDEO CONNECTING CABLES" on page 10.

Front

Behind the panel



- 1 VIDEO 2 IN (input) AV unconnector (AV jack)**
Connect to the video and audio output jacks of a VCR. Video and audio signals are transmitted simultaneously.
- 2 VIDEO 1 INPUT jacks**
- 3 VIDEO 3 INPUT jacks**
Connect to the video and audio output jacks of a VCR*, video disc player, etc.



*You will achieve better picture and sound quality than by connecting the VCR only to the antenna terminal.

- If your VCR is monaural, connect it to the **left audio jack of the VIDEO 1 INPUT**. You can listen to the mixed left and right channels from the both left and right speakers of the TV.

4 External audio (L/R) jacks or VIDEO 3 AUDIO INPUT (L/R) jacks

An external audio source can be connected to these jacks to be combined with the picture of the selected TV program. Connect to the audio/line output of the audio source.

To view FM simulcasted programs, see page 14.

5 VIDEO 3/EXT (external)-AUDIO selector

If you have connected a VCR, video disc player, etc., to the VIDEO 3 INPUT jacks, set to "VIDEO 3".
If you desire to mix the sound of the external audio source connected to the 4 External audio jacks with the picture of the TV program, set to "EXT-AUDIO".

6 MONITOR OUTPUT jacks (phono type)

Connect to the video and audio input jacks of a VCR or color monitor. Either the TV or VCR signal selected by the TV/VIDEO button is supplied. To record only the sound, connect the audio input jacks of a tape recorder to the AUDIO L and R jacks with a connecting cable such as the optional RK-74A.




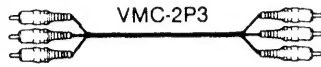


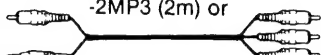



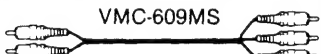

CONNECTIONS

OPTIONAL AUDIO/VIDEO CONNECTING CABLES




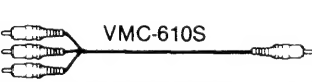


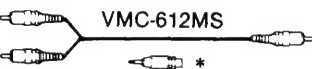
The optional connecting cables to be used for connecting other equipment depend upon what type of audio and video jacks the equipment you desire to connect has. The following charts will help you choose which cable you should use.

Cables to be connected to the VIDEO 1 * and 3 INPUT jacks

* The left (L) audio jack of the VIDEO 1 INPUT can feed the mixed left and right channels.

The type of audio and video jacks of the equipment to be connected.	Connecting cable to be used
Video (phono-type) Audio (L, R) (phono-type)   	VMC-2P3 
Video (phono-type) Audio (mini-type)  	VMC-1MP3 (1 m)/-2MP3 (2m) or VMC-1S (1.2m)/-3S (3m) and RK-G80  
Video (phono-type) Audio (phono-type)  	VMC-609MS or VMC-606M (1m)/-607M (2m)  

Cables to be connected to the VIDEO 2 IN and TV OUT (AV type) jacks

The type of audio and video jacks of the equipment to be connected.	Connecting cable to be used
Video (phono-type) Audio (L, R) (phono-type)   	VMC-610S 
Video (phono-type) Audio (phono-type)  	VMC-612MS  * The PC-21 is supplied to the cable for a mini-type audio input.

NOTES ON CONNECTION

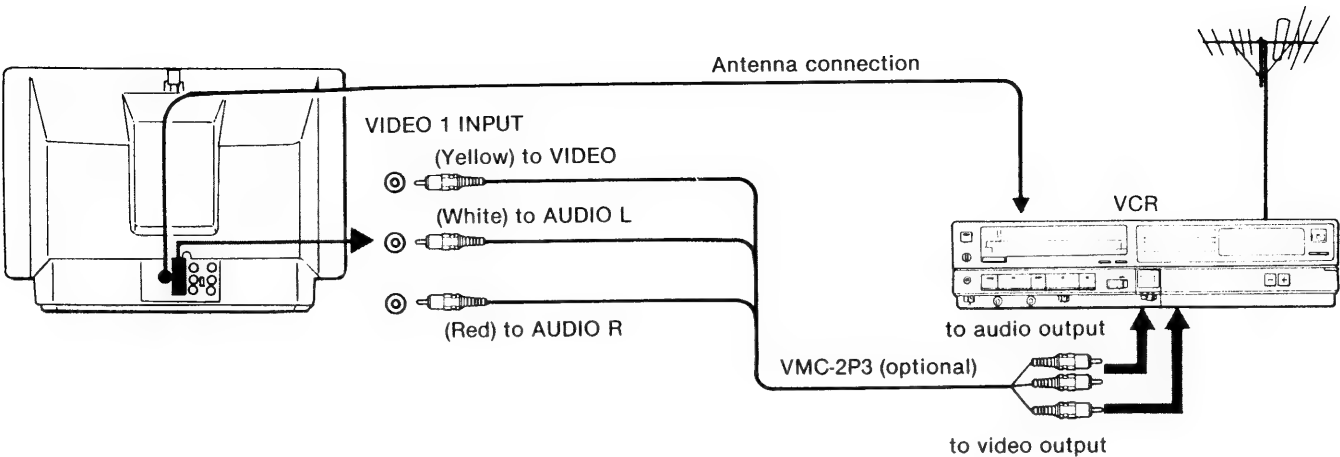
- Before connecting, make sure that the power to each piece of equipment is turned off.
- The plugs should be fully inserted into the jacks. A loose connection may cause hum and noise.
- Match the color when connecting the plugs to the jacks.

The following are few examples of the possible connections.

VCR CONNECTION

Keep the VCR away from the TV, if the display or sound is affected.

Connecting VCRs that are capable of receiving TV broadcasts

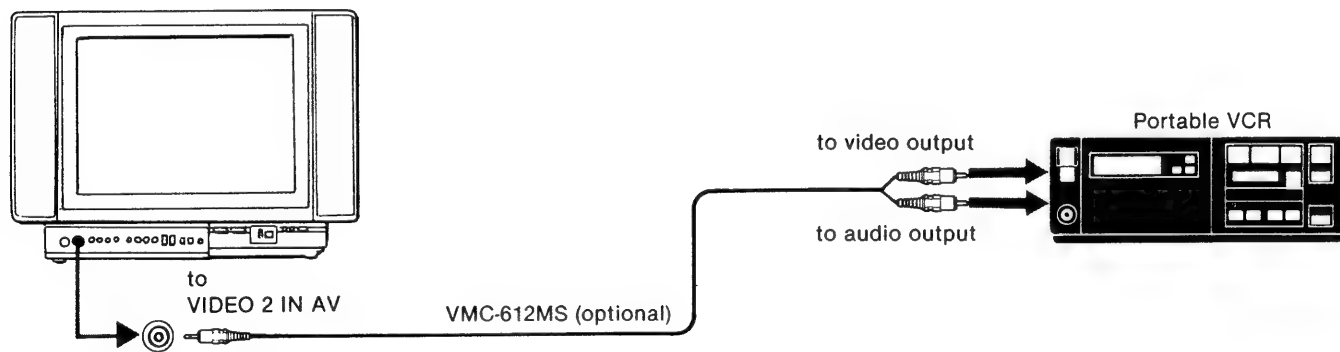


If you desire to connect another VCR, make the similar connection to the VIDEO 3 INPUT jacks and set VIDEO 3/EXT-AUDIO selector to "VIDEO 3".

- With this connection, you will be able to...
- View the playback of tapes
 - Record TV programs
 - Record a TV program while viewing another

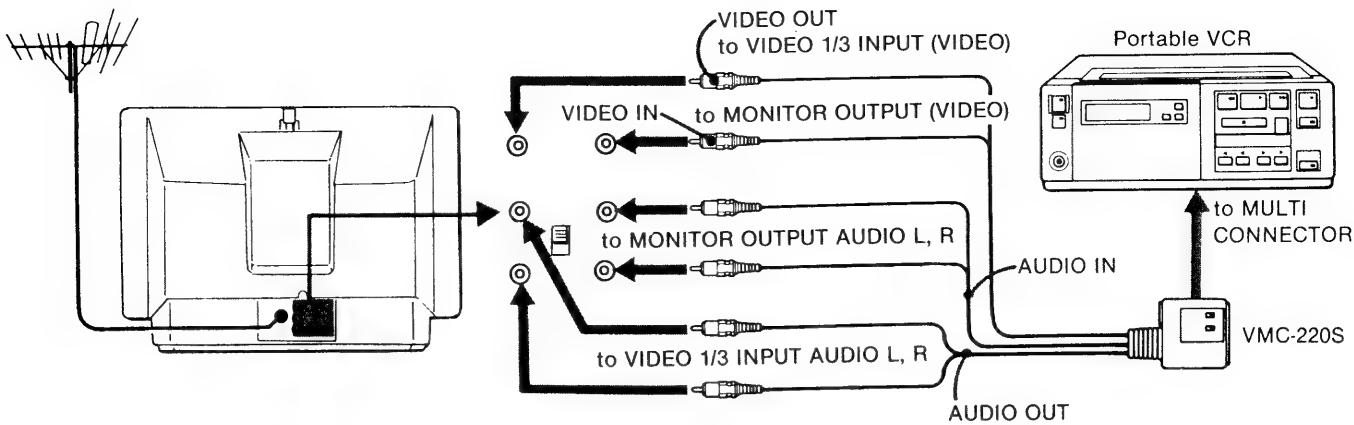
Connecting portable VCRs (that are not equipped with/connected to a TV tuner)

Connection 1 ...for playing back recorded tapes



Connection 2 ...for playing back recorded tapes and recording TV programs

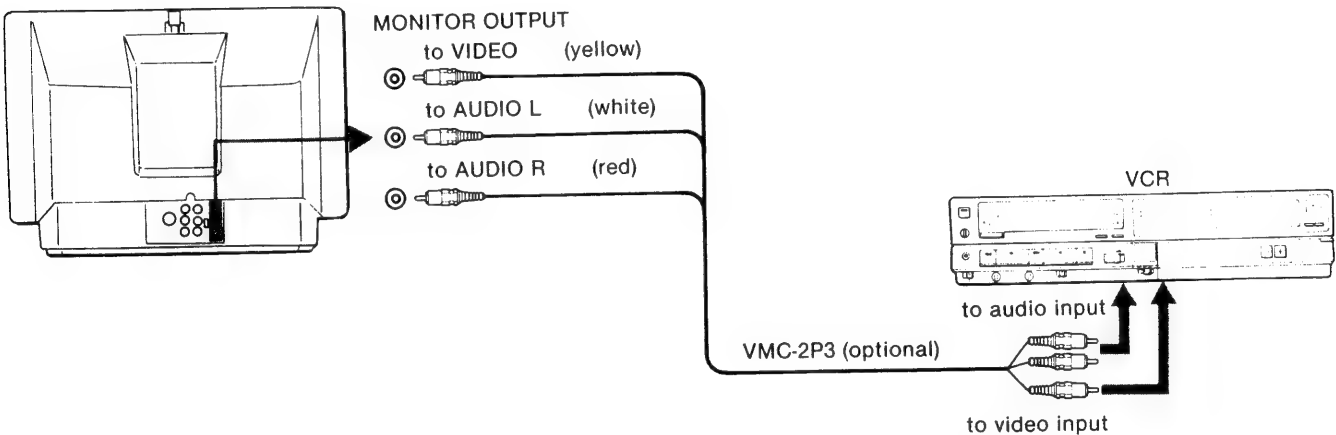
If your portable VCR is equipped with a MULTI CONNECTOR, use the optional VMC-220S video monitor cable and connect the VCR to the back as follows.



Editing tapes by connecting a VCR to the MONITOR OUTPUT jacks

If a VCR is connected to the MONITOR OUTPUT jacks besides another VCR, video disc player, etc., connected to the VIDEO 1/3 jacks or VIDEO 2 IN AV unconnector, you will be able to edit your own tapes by recording the

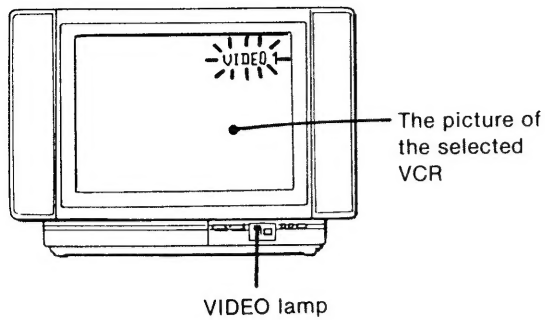
selected video source (including the TV programs) displayed on the screen. For selecting the desired video source, see page 13.



SELECTING THE VARIOUS AUDIO AND VIDEO SOURCES

VIEWING THE PICTURE OF THE EQUIPMENT CONNECTED TO THE VIDEO 1/3 INPUT or VIDEO 2 IN UNICONNECTOR

Press the TV/VIDEO button until the "VIDEO 1, 2 or 3" indicator of the VIDEO input jacks from which you desire the signals to come from appears. The VIDEO lamp will light up.



Every time you press the TV/VIDEO button, the display will change as follows:

VIDEO 1 → VIDEO 2 → VIDEO 3* → TV channel

Adjust the volume with the VOLUME buttons.

*Set VIDEO 3/EXT-AUDIO selector on the rear panel to "VIDEO 3" if "EXT-A" appears.

If you set the VIDEO 3/EXT-AUDIO selector to "EXT-AUDIO" when any connections are not made, the sound will be muted.

You can select the desired TV channel even while viewing a VCR playback or listening to the sound fed in through the AUDIO IN jacks.

TO LISTEN TO THE SOUND OF THE AUDIO SOURCE CONNECTED TO THE EXTERNAL AUDIO JACKS

- 1 Set VIDEO 3/EXT-AUDIO selector to "EXT-AUDIO".
- 2 Press TV/VIDEO button as many times as necessary until the on-screen "EXT-A" appears.

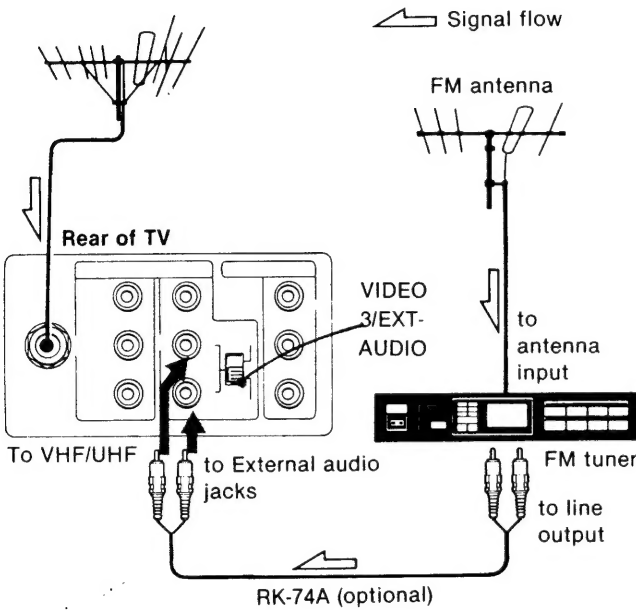
ENJOYING FM SIMULCASTED PROGRAMMING

Over-the-air FM simulcasts

Sometimes a TV station and an FM radio station will broadcast a program simultaneously so that viewers can enjoy TV programs in high-fidelity stereo. The video portion of the program is viewed normally by selecting the correct channel and the audio portion is heard in stereo by tuning to the correct FM station of the users FM tuner.

This TV featuring double-sided speakers has been equipped with External audio (L/R) jacks to allow the user to connect an FM tuner so that stereo simulcasts can be enjoyed on the TV's stereo speakers. Set-up is shown below.

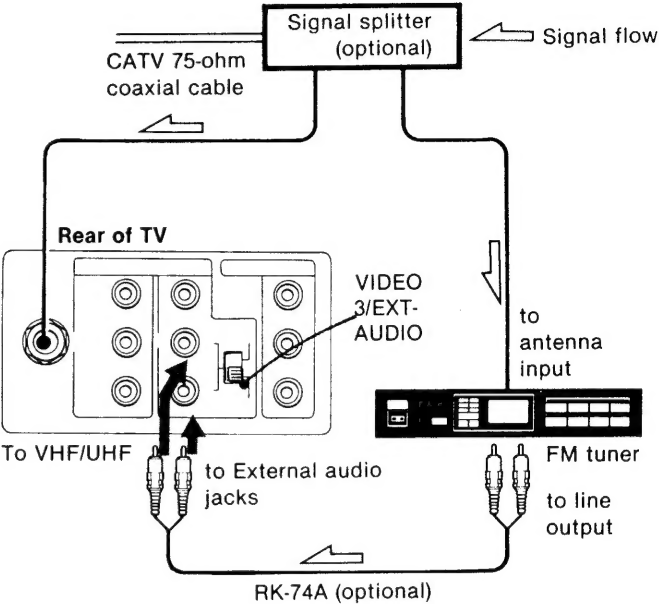
Connection



Over-the-cable FM simulcasts

Cable TV companies have also started "simulcasting" some channels like MTV (Music Television) and selected movies in stereo over the cable. In the case of cable stereo programs, however, the audio signal is not sent over the air but sent on FM frequencies over the cable. By splitting the incoming cable signal and running it to both the TV tuner and an FM tuner/receiver, these cable programs can be enjoyed in stereo over the TV's double-sided speakers as shown below.

Connection



Preparation

- Make sure the following are properly set.
- Set VIDEO 3/EXT-AUDIO to "EXT-AUDIO".
 - Press TV/VIDEO button as many times as necessary so that the on-screen "EXT-A" indicator is displayed.
 - For over-the-air FM simulcasts, the CABLE ON/OFF selector should be OFF.
 - For over-the-cable FM simulcasts, the CABLE ON/OFF selector should be ON.

Operation

- 1 Set the FM tuner to the frequency designated by the broadcaster.
- 2 Operate the TV the same as in usual TV viewing.

OUTDOOR ANTENNA CONNECTION SPECIFICATIONS

If you cannot obtain satisfactory reception with the dipole antenna, using an outdoor antenna may be necessary. Cable TV reception is only possible by connecting a cable supplied by your local cable operator.

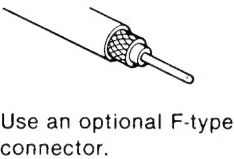
- 1 Remove the indoor antenna from the antenna terminal of the TV.
- 2 Prepare the antenna or cable end using the appropriate connector, and connect the antenna or cable to the antenna terminal of the TV. (See A or B below.)

A

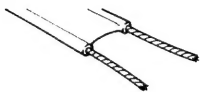
Combination VHF/UHF antenna,* VHF antenna, UHF antenna or CATV cable

Select the proper connector according to the cable type.

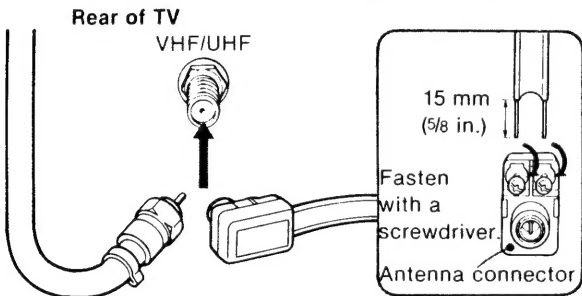
When the cable is a 75-ohm coaxial type (round)



When the cable is a 300-ohm ribbon type lead-in (flat)



Attach the antenna connector which was fixed to the indoor antenna.

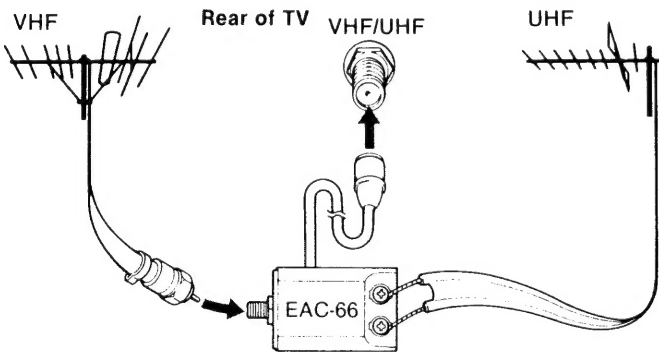


*Most combination antennas are equipped with a signal splitter. Take off the splitter and attach the proper connector.

B

When both VHF and UHF antennas are connected

Prepare the VHF antenna end using the appropriate connector as illustrated in A. Attach an optional EAC-66 U/V mixer to the TV antenna terminal, and connect the cables to the U/V mixer.



When the cable is connected to the TV with the U/V mixer, snow and noise may appear in the pictures of the cable TV channels over 37 (W+1).

Television system	American TV standards
Channel coverage	VHF: 2-13 UHF: 14-69 Cable TV: 1-125
Picture tube	Trinitron tube 20-inch picture measured diagonally 21-inch picture tube measured diagonally
Inputs	VIDEO 1, 3 INPUT (phono jacks) Video: 1 V p-p, 75 ohms unbalanced, sync negative Audio: 408mVrms (100% modulation, 47 kilohms) VIDEO 2 IN AV (AV jack) Video: 1 Vp-p, 75 ohms unbalanced, sync negative Audio: 408mVrms (100% modulation, 47 kilohms)
Outputs	MONITOR OUTPUT (phono jack) Video: 1 Vp-p, 75 ohms unbalanced, sync negative Audio: 408mVrms (100% modulation, 5 kilohms) PHONES (stereo minijack) Accepts 8-ohm headphones
Power requirements	120V AC, 60 Hz
Power consumption	135 W (max.) 3 W (in standby condition)
Accessories supplied	Remote Commander RM-728 with 2 size AA batteries Earphone
Optional accessory	U/V mixer EAC-66 Audio/video connecting cables (see page 10) Audio connecting cable RK-74A

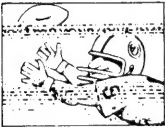

Design and specifications subject to change without notice.

Note to CATV system installer in the U.S.A:

This reminder is provided to call the CATV system installer's attention to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

TROUBLESHOOTING

Disturbances in picture and sound can often be eliminated by checking the symptoms and following the suggestions listed below.

SYMPTOM		CHECK AND ADJUST
GENERAL	Poor or no picture (screen not lit), good sound	<ul style="list-style-type: none"> Adjust PICTURE. Adjust BRIGHT. Re-orient antenna. Check antenna/cable connections.
	Good picture, no sound	<ul style="list-style-type: none"> Press VOLUME +. Release MUTING on the Remote Commander. Check that the MTS button is set correctly. Is the VIDEO 3/EXT-AUDIO selector set correctly? Disconnect the headphones or earphone.
	No picture (screen not lit), no sound	<ul style="list-style-type: none"> Is POWER switched on? Power in outlet? Check that the VIDEO button is set correctly.
	No color	Is it a color program?
	Snow and noise only	<ul style="list-style-type: none"> Is it an active or the correct channel? Check the CABLE ON/OFF selector setting. Check antenna connections.
	 Dotted lines or stripes	This is often caused by local interference. (ex. cars, neon signs, hair-dryers etc.) Adjust antenna for minimum interference.
	 Double images or ghosts	Reflections from nearby mountains or buildings often cause this problem. A highly directional outdoor antenna or CATV cable may improve the picture.
Try another channel. It could be station trouble.		

SYMPTOM		CHECK AND ADJUST
CONNECTED EQUIPMENT	No picture and/or sound for the connected equipment	<ul style="list-style-type: none"> Check that the VIDEO button is set correctly. Are the connections made firmly? Check that the VIDEO 3/EXT-AUDIO selector is set correctly. Is the power of the connected equipment turned on? Is the connected equipment set correctly?

If the problem still cannot be solved, contact your nearest service facility.